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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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PIONEER HI-BRED INTERNATIONAL INC. 7100 N.W. 62ND AVENUE P.O. BOX 1000 JOHNSTON IA 50131		MEHTA, A	ART UNIT
		1638	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/490,312	WEBER, GERHARD P.
	Examiner Ashwin Mehta	Art Unit 1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-32 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

KATRINA TURNER  
PATENT ANALYST

#### Attachment(s)

15) Notice of References Cited (PTO-892)

16) Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

18) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

19) Notice of Informal Patent Application (PTO-152)

20) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. Page 7 of the specification is objected to for the inclusion of blank lines where the ATCC accession number should be. Inclusion of the number will overcome the objection.

### ***Claim Objections***

2. Claims 1, 5, and 7 are objected to for the inclusion of a blank line where the ATCC accession number should be. Inclusion of the number will overcome the objection.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-7 and 9-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,018,113. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed hybrid maize seed designated 39M27 of the present invention does not appear to be patentably distinct from the claimed hybrid maize seed designated 38W36 of

6,018,113. Plants derived from both seeds share numerous characteristics, and those which are not shared would be due to minor morphological variation, which would be expected to occur in different progeny of the same cultivar, and wherein said minor morphological variation would not confer a patentable distinction to 39M27. Further, the designation "39M27" does not distinguish the instantly claimed seeds and plants from 38W36, as this appears to be an arbitrarily assigned designation. Insertion of the ATCC deposit number into claims 1, 5, and 7 would overcome the rejection.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because they require the plants of the claim from which they depend to be male sterile. However, the plants recited in claims 2 and 20, namely plants having all of the morphological and physiological characteristics of the deposited line, aren't defined in the specification as being male sterile. Page 2 of the specification teaches methods how to confer male sterility to a plant line. However, addition of such a trait would make the plant different from that of the deposited line, and claims 8 and 21 do not make any mention of the methods mentioned on page 2. It is therefore not clear whether claims 8 and 21 are referring to 39M27 or another plant.

5. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitations "Hybrid maize seed designated 39M27" in line 1 of claim 1, "hybrid maize plant 39M27" in line 1 of claim 5 and line 3 of claim 7, and render the claims and those dependent thereon indefinite. Since the name "39M27" is not known in the art, the use of said name does not carry art recognized limitations as to the specific characteristics or essential characteristics which are associated with that denomination. The name "39M27" does not clearly identify the claimed hybrid maize seed, and does not set forth the metes and bounds of the claimed invention. In addition, the name appears to be arbitrary and the specific characteristics associated therewith could be modified, as there is no claimed description of the maize plant that encompasses all of its traits. Amending claims 1, 5, and 7 to recite the ATCC deposit number in which hybrid maize seed 39M27 has been deposited would overcome the rejection.

6. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation "capable of expressing" in lines 3-4 of claim 5 and line 2 of claim 7 render the claims and dependent claim 6 indefinite. The recitation does not make clear whether or not the characteristics are expressed. It is suggested that "capable of" be deleted from claims 5 and 7.

7. Claim 6 recites the limitation "or protoplasts" in line 1. There is insufficient antecedent basis for this limitation in the claim or the claim from which it depends. It is suggested that the

recitation "the cells or protoplasts being" in line 1 be replaced with --wherein cells or protoplasts are derived--.

8. Claims 11, 15, 19, 24, 28, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because they do not indicate the "standards" against which the listed traits should be compared to determine the yield, root strength, European corn borer resistance, etc. For example, page 19, lines 1-2 of the specification indicates comparisons were made against a particular Pioneer Hybrid line. Since it is unknown how many generations separate the claimed plants from 39M27, it is not clear how different the claimed plants are from 39M27. The claimed plants can have as few as two of the characteristics of 39M27. It is therefore not clear what type of plants would be suitable to use for comparison to the claimed plants in order to determine the characteristics listed in the claims. In addition, the recitations of "excellent" and "above average" are unduly narrative and not associated with a specific numerical value or art-recognized meaning. Although the specification provides explanations to these terms to a certain extent on pages 8-15, reference plants are still required to accurately determine these characteristics. Further still, the categorization of the United States into the indicated regions appears to be arbitrary. Without knowing what states make up the indicated regions of the United States, it is not clear how one would determine if the claimed plant is particularly suited to any of these regions. It is also not clear what is meant by "particularly".

9. Claims 9, 10, 13, 14, 17, 18, 22, 23, 26, 27, 30, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9, 12, 17, 22, 26, and 30 are drawn to a method for developing a maize plant in a plant breeding program, and the claims indicate that the a maize plant, or its parts, would be used as a source of breeding material. However, the claims do not set forth any specific method steps with regard to how the maize plant or parts would be developed. All that is indicated is that it would be used.

10. Claims 10, 14, 18, 23, 27, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because they refer to the maize breeding program of the claim from which they depend, whereas those claims are drawn to a method. It is suggested that the recitation "The maize plant breeding program" be replace with --The method--.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-32 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Since the seed claimed is essential to the claimed invention, it must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If a seed is not so obtainable or available, the requirements of 35 U.S.C. 112 may be satisfied by a deposit thereof. The specification does not disclose a repeatable process to obtain the exact same seed in each occurrence and it is not apparent if such a seed is readily available to the public. It is noted that applicants intend to deposit seeds for 39M27 at the ATCC, but there is no indication that the seeds have been deposited. If the deposit of these seeds is made under the terms of the Budapest Treaty, then an affidavit or declaration by the applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the seeds will be irrevocably and without restriction or condition released to the public upon the issuance of a patent would satisfy the deposit requirement made herein. A minimum deposit of 2500 seeds is considered sufficient in the ordinary case to assure availability through the period for which a deposit must be maintained.

If the deposit has not been made under the Budapest Treaty, then in order to certify that the deposit, meets the criteria set forth in 37 CFR 1.801-1.809, applicants may provide assurance of compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number showing that

- (a) during the pendency of the application, access to the invention will be afforded to the Commissioner upon request;
- (b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- (c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the enforceable life of the patent, whichever is longer;
- (d) the viability of the biological material at the time of deposit will be tested (see 37 CFR 1.807); and

(e) the deposit will be replaced if it should ever become inviable.

***Claim Rejections - 35 USC § 102 & 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-32 are rejected under 35 U.S.C. § 102 (e) as anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as obvious over Weber (U.S. Patent No. 6,018,113).

The claims broadly encompass a plant, or parts thereof, having characteristics of hybrid maize plant 39M27, a seed or progeny derived from maize plant 39M27, maize plants derived from 39M27, tissue culture derived from 39M27, methods of using said plant in a breeding program.

Weber teaches hybrid maize plant and seed 38W36. It appears that the claimed plants and seeds of the instant invention may be the same as 38W36, given that each has exceptional grain yield potential, excellent resistance to European corn borer, and particularly suited to the Northwest, North Central, and Northeast regions of the United States as well as to Canada (col. 10, line 65 col. 11, line 6), for example. Alternatively, if the claimed plants, plant parts, and seeds of 39M27 are not identical to 38W36, then it appears that 38W36 only differs from the claimed plants, plant parts, and seeds due to minor morphological variation, wherein said minor morphological variation would be expected to occur in different progeny of the same cultivar, and wherein said minor morphological variation would not confer a patentable distinction to 39M27. Weber also teaches a plant produced from tissue culture of 38W36 or a hybrid plant of 38W36, and maize plant pedigree breeding comprising techniques which include backcrossing, recurrent selection, etc. (col. 3, line 50 to col. 5, line 9; col. 15, line 64 to col. 17, line 14). Introduction of other genes into 38W36 via genetic engineering or breeding, and transfer of transgenes from a transgenic plant to a non-transgenic plant through crosses is also taught (col. 17, line 15 to col. 25, line 54). Weber also teaches how to confer male sterility trait to 38W36, and that it would be desirable to do so, for example, to avoid the laborious and unreliable detasseling process used during production of hybrid maize seed (col. 1, line 63 to col. 2, line 50). As cultivar 38W36 is the same as cultivar 39M27, the claimed invention was *prima facie* obvious as a whole to one of ordinary skill in the art at the time it was made, if not anticipated by Weber. Amending claims 1, 5, and 7 to include the ATCC accession number will overcome the rejection for claims 1-10, 12-14, 16-18, 20-23, 25-27, and 29-31.

However, even with the inclusion of the ATCC number, the plants of claims 11, 15, 19, 24, 28, and 32 are still taught by Weber, as cultivar 38W36 has at least two of the characteristics of 39M27 listed in those claims. The process of making the claimed plants does not distinguish the plants themselves from those taught by the reference. Thus, the claimed invention was

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clearly prima facie obvious as a whole to one of ordinary skill in the art, if not anticipated by Weber.

13. No claims are allowed.

#### **CLOSING REMARKS**

Any inquiry concerning this communication should be directed to Examiner Ashwin Mehta, whose telephone number is (703) 306-4540. The Examiner can normally be reached Monday-Friday, from 8:30 A.M. - 5:00 P.M. The fax phone number for the group is (703) 305-3014. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Paula Hutzell, can be reached at (703) 308-4310. Any inquiry of a general nature or relating to the status of the application should be directed to the Group receptionist, whose telephone number is (703) 308-0196.



**ASHWIN D. MEHTA, PH.D**  
**PATENT EXAMINER**

Ashwin D. Mehta

06/28/01